

[PD2-45] [04/20/2001 (Fri) 13:30 – 14:30 / Hall 4]

Immuno-modulatory activity of the polysaccharide from the fruits of *Acanthopanax sessiliflorum*

Ji J¹°, Lee SH¹, Shin KH¹, Ban HS², Ohuchi K² and Cho SH³

¹Natural Products Research Institute Seoul National University ²Laboratory of Pathophysiological Biochemistry, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan ³Kong Ju University of Education

As part of the evaluation of biologically active principles from the fruits of *Acanthopanax sessiliflorum*, various fractions obtained from this plant parts were tested for their effects on immunological functions *in vitro* and *in vivo* in mice and rats.

Among fractions tested, the polysaccharide fraction only was demonstrated to exhibit a significant increase in NO production both in the presence and the absence of LPS as well as a significant increase in acid phosphatase activities at 100µg/ml in murine macrophages *in vitro*. The polysaccharides, when administered orally at a dose of 50 mg/kg, also caused a significant enhancement of phagocytosis in carbon clearance test in mice. These results suggested that the polysaccharide is an immuno-modulatory principle of the fruits of *Acanthopanax sessiliflorum*.

[PD2-46] [04/20/2001 (Fri) 13:30 – 14:30 / Hall 4]

Constituents of the Essential Oil of the Cinnamomum cassia Stem bark and the Biological Properties

Choi JW¹, Lee KT², Ka H², Jung WT³, Kwon SH⁴, Park HJ⁴

¹ College of Pharmacy, Kyungsung University, ² College of Pharmacy, Kyung-Hee University, ³ Central Research Institute, Il-Yang Pharmaceutical Co., ⁴ Division of Applied Plant Sciences, Sangji University

GC-MS analysis on the essential oil (CC-oil) of Cinnamomum cassia stem bark led to the identification of cinnamaldehyde (CNA, 1), 2-hydroxycinnamaldehyde (2-CNA), coumarin (2) and cinnamyl acetate. The most abundant volatile flavor was found to be 2-CNA. Phytochemical isolation of the essential oil yielded the colorless oil CNA and colorless needle coumarin. CNA and CC-oil showed the potent cytotoxicities and these had the property that can be readily blocked by N-acetylcysteine (NAC) with strong nucleophilic sulfhydryl. This suggested that alpha,beta-unsaturated aldehyde of CNA or its derivatives are capable of conjugating with sulfhydryl biomolecules. Intraperitoneal administration with CNA considerably decreased glutathione S-transferase in the rat. However, the administration of CNA did not increase the malondialdehyde (MDA) value of normal rat but decreased it by less than of normal rat. This result suggested that CC-oil and CNA could regulate hepatic drug-metabolizing enzymes and contribute to the improvement of several of diseases associated with aging.

[PD2-47] [04/20/2001 (Fri) 13:30 – 14:30 / Hall 4]

Evaluation of the herbal extract mixture for the Effects of Hair-Regrowth ; elongation of Anagen period on C3H mice

Lee KH, Han SJ^o, Park MS, Lee SE, Kim GO, Lee HJ, Han KT, Kwon YE

Advanced Science Research Laboratory, STC Life Science Center